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ABSTRACT

Isolated examples of creative adaptation show that Jean Piaget's theories of childhood development provide the conscientious teacher with a veritable warehouse of innovative and thought-provoking principles with which to construct a meaningful foundation of language arts experimentation. The elementary Piagetian principles for evoking creativity and fostering creative thinking in the language arts classroom appear to revolve around the use of "structured" games, such as those exploring a child's understanding of space, time, and causality. Other structured games that might be useful in language arts experimentation include activities that promote spontaneous actions performed on selected objects and exercises that associate "egocentric speech" with the development of basic verbal communication skills. What is needed is more exploration incorporating Piaget's theories into classroom games and more translation of theoretical Piagetian pronouncements into learning situations that encourage creative thinking. (RL)

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"Piaget And Language Arts: The Role Of 'Creative Thinking' In The Experimental Classroom"

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There have been, without question, countless readings of Jean Piaget's theories on the evolution of childhood development and the nature of a child's creative thinking process; each depending not solely upon the selected texts available, but equally upon the perspective of the individual reader.

Each reader inevitably brings with him to the cognitive world of Piagetian research some firmament of values and premises, either explicit or implicit, as regards the theoretical rationale relevant to Piaget's basic ideas of the development of a child's creativity; and more ultimately as regards the nature of the creative process itself.

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These furnish at one level or another the reader's stance for interpreting the figurative and symbolic representations posited by Piaget's experimental investigations. Whether as inklings or as articulated judgments, they are also a working creed of sorts, by which the reader discriminates the chaff from the grain in an eventual harvest of Piaget's fundamental notions.

No doubt part of the difficulty in rendering an adequate reading of Piaget, however, and in assimilating his views into an over-all perspective which reflects the dimensions of the challenge he presents to language arts instruction, has been the rather clinical and personal terminology with which he has clothed his thoughtful findings.

"Intelligence," for example, is both "a system of living and acting operations" [1] and "a particular instance of biological adaptation." [2] Consider also that Piaget's studies in intelligence have resulted in the frequent use of the scientific term "syncretism" [3] to describe the child who has a tendency to group together various and different events into a loose and confused total portrait; and in the use of his own term "vertical decalage" [4] to describe the child whose sense of "action" is more advanced than the accompanying verbal thought.

The admittedly biological orientation inherent in Piaget's theoretical classifications of intelligence is also incorporated into his empirical propositions for encouraging creative thinking, [5] but here the explanations assume a less technical jargon and make assimilation to experimentation more readily apparent.

Those elementary Piagetian principles for evoking creativity and fostering creative thinking in the classroom that are most susceptible to language arts experimentation all appear to revolve around the use of "structured" games, [6] specifically those games which explore a child's understanding of space, time or causality; or those "activities" which promote spontaneous actions performed on selected objects; [7] or those "exercises" which associate "ego centric speech" with the development of basic verbal communication skills. [8]

Before proceeding to a discussion detailing the creative principles involved in applying Piaget-inspired games to the classroom for the express purpose of provoking creative thinking, it is necessary to point out some of the caveats which may inhibit the framing of a meaningful blueprint for performance; and to postulate some restrictive guidelines for fashioning games or conducting activities and exercises.

For example, Piaget's experiments in the psychology of childhood "playmaking" and "schemes" [9] reveal that the active attention span of a child is extremely limited and narrow in focus, and that any complimentary "world view" is more immediate than future.[10] In addition, there is also the prevalent tendency of the child to approach "reality" in terms of what is already known and understood, and to often fail to perceive the alternative possibilities present in a given situation. [11]

But the most remarkable discovery made by Piaget, and the one most germane to a discussion of the role that 'games' might play in fostering creative thinking and language arts skills, was that children respond more to "states" of being than to "transformations" of being; [12] and that the development of cognition, and by implication creativity and language, is primarily a product of "action" and is initially "non-linguistic."[13]

In light of these theoretical findings, the question should now be posed regarding the mutual compatibility of Piaget's views, reached under restrictive laboratory conditions, and innovative attempts to incorporate his theorms in an experimental classroom.

At first glance, it would appear that Piaget is an excellent fellow travelling companion, and that his exhaustive psychological studies and investigations provide ample material for exploring

particular aspects of a child's imagination and creative thinking process; and that his suggestions for structured 'games' can lead to valuable insights regarding the nature of a child's language development.

Consider, as an illustration, Piaget's theory of "logico-mathematical" [14] relationships, intended in application to demonstrate that the development of a child's knowledge is not a direct result of perceiving objects, but of actions performed on objects. To document his hypothesis, Piaget cites a childhood friend's experience with counting pebbles and placing them in neatly-ordered rows, [15] and draws the conclusion that through the repetition of counting and arranging the child learned an important element of mathematical number: it remains constant despite recounting or rearranging.

When translated to the experimental classroom, this theoretical instructional tool assumes the added dimension of teaching the properties and uses of objects, and details the functional role that language and movement might play in developing creative thinking skills.

Begin the experiment with a "touchy-feely box," [16] a cardboard box brightly decorated with openings on two sides so that a child may reach his hands inside without being able to see the hidden objects, and have each child select an object. Following

a selection, the child should be given the opportunity to describe the object in as much detail as possible. In the verbalization of the object the instructor should guide the response so that the child concentrates on the color, the texture, the shape and the weight of the object and will be able to sense the need to distinguish similarities and differences in other objects that will become part of the experiment.

For each individual verbalization there should also be a discussion of the "function" of the object so that the child is able to associate its individual characteristics with a special usage. Here, it is often convenient to pose questions that begin with "Is it like?" "Does it remind you of?" or "What do you know that is almost the same?"

When each child has made a selection and there has been sufficient development of the description and function of the object, proceed to the second phase of the gaming experiment: the pairing of mutually agreeable objects based upon their special function.

Here it is essential that the teacher permit the children to make their own decisions regarding the compatibility of objects (and, of course, if "mistakes" happen will make the learning experience even more valuable in the final phase of the experiment).

Some common examples of the pairing at this stage of the exercise might be the child with the apple and the child with the pear, the child with the paper and the child with the pen, or the child with the plate and the child with the cup.

The exercise is repeated a third and a fourth time, with appropriate discussion following each successive pairing so that there is general agreement that all objects have been grouped according to their function. Following the final pairing, the exercise concludes with a performance by the children demonstrating, verbally and non-verbally, the use of the object in an imaginary environment.

For example, the child with the plate and the child with the cup may well have been paired finally with another child who has a spoon and yet another child who has a salt shaker. Their creative performance, using Piaget's logico-mathematical impulse, should be a conversation and an action related to the function of those four objects in combination; a scene related to eating, household duties or being served in a restaurant would be appropriate to evaluate the sucess of the experiment also.

Regardless of the individual instructor's approach to this particular Piagetian-inspired game, [17] it proves in experimentation to be an invaluable tool in the instruction of functional relationships and values; and the complimentary performance aspect

is an excellent preliminary exercise for preparing a child to engage in later symbolic representations.

The need for symbolic representation, or creative imitation, is a second theoretical game which bears ripe fruit for the experimental classroom harvest and is based on Piaget's theory of "Mental Symbols," [18] which are intended to develop the ability to make something---a mental image, a word or an object---stand for or represent something else which is not present.

It was Piaget's belief that such mental symbols permit a child to "construct" his own creative experience more accurately and more descriptively than an adult might do for him; and that the sequences of images possible to represent could be "indexed" by encouraging the child to respond to pictures, three-dimensional models, onomatopoeia language, real or imagined objects and imitative body movements when representing his images.

The possibilities presented by Piaget's blueprint for evoking mental symbols lead to a variety of classroom experimentation, and the provisional index proves to be the necessary element of structure that is so often found lacking in similiar attempts to externalize a child's creative imagination. [19]

With Piaget as theoretical guide, a very common "pretend" game like "the day the circus came to town" gains added dimension when accompanied by the inherent structure of the provisional index; and is representative of the importance Piaget places on

using "symbolic play" to develop creative thinking and language skills. [20]

The instructor begins the classroom experiment by carefully selecting appropriate pictures or slides to represent the characters found in a circus. As each picture is revealed, there is discussion regarding the role of the character, the dress and manner of the character and the images provoked by seeing the character. [21]

When the instructor is satisfied that the child is aware of such characteristics as height, weight, color, form and role, the picture is put away and the child's visual impression is explored by giving him paper, clay, paint or any other art materials and asking him to "recreate" the character as it appears now in his memory.

Following the period of evoking the visual impression in some sort of artistic fashion, the original picture or slide is unveiled again and there is comparison and commentary between the initial character image as it was projected and the subsequent symbolic representation as it was rendered in art work. It is important here to make comparisons and commentary which direct the child to express his mental image of the original picture or slide in concrete terms, for this will play an important role in the conclusion of the experiment.

The next step in the exercise is to combine onomatopoeia language, sound which suggests the meaning of the word or action, and imitative body movements to an interpretation of the circus character that has been viewed. This combination of indexed Piagetian principles involves the class, in either groups or individually, using both voice and body to externalize the selected character in terms of the role he plays in the circus.

Although the exercise may also be accompanied by appropriate music or even sound effects, it is generally best to allow the child to reconcile his own mental image and the symbolic representation without adult assistance because his limited sensorimotor knowledge and limited representational knowledge must be bridged individually if he is to profit by the final phase of the exercise: the use of objects, real or imagined, to represent other objects.

This concluding application of Piaget's index to evoking mental symbols and encouraging creative thinking and language skills involves incorporation of all the "complimentary" objects necessary to complete the circus portrait.

Whether the exercise is envisioned to evoke only those objects associated with individual characters at the circus, or those objects and accompanying dialogue of individual characters,

the principle remains the same. The child is encouraged to give his mental images "free play," both vocally and bodily, and is provided with boxes, stools, chairs or other "real" objects which are then used to construct a representation of his symbolic images.

There is also a graduated variation of the mental symbol game using the circus motif, and it is employed whenever the instructor is confident that the child has mastered the basic formula suggested by Piaget's index for structuring the imagination so that it can be more cognizable. [22]

This epilogue to the experiment involves the use of mime to encourage non-verbal communication and asks the child to "recreate" his symbolic image by use of the body only; and to "spell out" those thoughts and feelings he experienced while assuming the role of the character. It also involves any number of selected "scenes" from the circus, as children in groups of three or four improvise what their individual characters might "say" and "do" in any given situation.

In any event, this Piaget-inspired game encourages the child to willingly enter the symbolic world of his imagination and, hopefully, to discover there the framework to give voice to his mental images. It also helps the child to strengthen his ability to understand the relationship between an object that "is" and an object that "might be," or the cognitive

realization that creative representation permits mental symbols to become whatever the individual viewer wishes or says they might be.

It should also be apparent from these isolated examples of creative adaptation that Jean Piaget's theories of childhood development provide the conscientious teacher with a veritable warehouse of innovative and thought-provoking principles with which to construct the building blocks for a sound and meaningful foundation of future language arts experimentation. What is needed is more exploration incorporating Piaget's theories into classroom games, and more translation of theoretical Piagetian pronouncements into learning situations that encourage creative thinking.

FOOTNOTES

[1] Jean Piaget, The Psychology of Intelligence, trans. by M. Percy and D. E. Berlyne (London, 1950), p. 6.

[2] Jean Piaget, The Origins of Intelligence in Children, trans. by M. Cook (New York, 1952), p. 34.

[3] Irene J. Athey and Duane Rubadeau, Educational Implications of Piaget's Theory (Toronto, 1970), p. 113.

[4] Ibid.

[5] In his initial experiments with creative thinking, Piaget was most concerned with "imagery" and "representation"; and devised an elaborate methodoly to evaluate "kinetic" responses, "transformational" impulses and "anticipatory" perceptions. For a more detailed account of his reasoning see Jean Piaget, The Language and Thought of the Child, trans. by M. Gabain (New York, 1926).

[6] Piaget believes in employing formal languages, logic or mathematics for example, to describe the development of a child's creative activity. "Structured" activities imply that there is an anticipated product resulting from the activity.

[7] Jean Piaget, "Development and Learning," in Piaget Rediscovered, R. E. Ripple and V. N. Rockcastle, eds. (New York, 1964), p. 12.

[8] Piaget, The Language and Thought of the Child, pp. 33-37.

[9] Any organized or patterned code of behavior, like an infant's nursing, is termed a "scheme" by Piaget. For an interesting variation of that theoretical concept see Herbert Ginsburg and Sylvia Opper, Piaget's Theory of Intellectual Development (New Jersey, 1969), pp. 20-22.

[10] Ibid., p. 219.

[11] Ibid., p. 220.

[12] Ibid., pp. 218-220.

[13] Ibid., p. 171.

[14] Jean Piaget, in Piaget Rediscovered, pp. 12-13.

[15] Ibid.

[16] The most appropriate objects are those of varying shapes, sizes and textures. It is also useful to have objects of a familiar nature, like pens, hats, keys, so that the children may use them more creatively in the final phase of the exercise.

[17] Once the Piagetian principles have been established similiar experiments are possible using, as selected examples, familiar environments that employ objects related to a baseball game, a visit to a farm or a trip to the museum.

[18] Jean Piaget, Play, Dreams and Imitation in Childhood, trans. by C. Gattegno and F. M. Hodgson (New York, 1962), pp. 61-64.

[19] For a discussion of the types of "pretend" games that might be of value when applying Piaget's blueprint to the classroom see Viola Spolin, Improvisation for the Theatre (Illinois, 1963),

[20] Piaget, Play, Dreams and Imitation in Childhood, p. 166.

[21] Other suggested motifs which lend themselves to mental symbol experimentation include movie and television personalities, cartoon and newspaper characters, Wild West shows, fairy tales and treasure hunts. All appear to have that necessary ingredient of "adventure" that distinguishes the successful experiment in evoking mental images.

[22] As a final exercise in mental imagery and representation, the circus motif is an excellent device for introducing characterization and theatrical techniques into the Piagetian index if the instructor encourages the use of suggestive costuming and make-up and has privilege to borrow musical instruments.